How has having several contaminated sites in your hometown impacted your perspective on Superfund?

In addition to the sites around Bristow detailed below, there are three current or deleted NPL sites in the Tulsa area:

Compass Industries (Avery Drive), Tulsa

- Compass Industries Landfill is an abandoned facility located in a former limestone quarry.
- It was a municipal landfill between 1972 and the early 1980s.
- During operation, the landfill accepted about 620,000 cubic yards of solid, liquid and sludge wastes, including acids, caustics, solvents and potentially carcinogenic materials.
- Landfilling activities contaminated soil and groundwater with hazardous chemicals.
- Following cleanup, the U.S. Environmental Protection Agency (EPA) took the site off the Superfund program's National Priorities List (NPL) in 2002.
- The fifth five-year review found that the remedy currently protects human health and the environment.
- The City of Sand Springs maintains the site and performs routine maintenance and sampling.
- Risks and pathways addressed by the cleanup include health risks from people ingesting or touching contaminated soil.

Sand Springs Petrochemical Complex, Sand Springs

- The 235-acre Sand Springs Petrochemical Complex site is located one mile south of Sand Springs in Tulsa County, Oklahoma. The site is located on the north bank of the Arkansas River.
- The area was the location of Pierce Petroleum Refinery and Sinclair Refining Company operations from the early 1900s to 1948.
- A variety of other industries operated on site beginning in 1953.
- Several solvent and oil recycling facilities operated on a 5.5-acre portion of the site from 1964 through 1983. This 5.5-acre area is referred to as the Glenn Wynn area.
- Two unlined pits, numerous tanks and drums, and contaminated soils from accidental spills remained on site from the previous recycling operations.
- In December 1980, EPA and state agencies became concerned about the possible contamination at the site.
- Over the next three years, water and soil samples were collected and analyzed to determine any potential risks to human health or the environment. EPA added the site to the NPL in 1986.
- Following emergency actions to protect human health and the environment, and construction of the site's long-term remedy, EPA took the site off the NPL in 2000. Operation and maintenance activities and monitoring are ongoing.
    - The site's long-term remedy included excavation of petroleum waste material, stabilization/solidification of the waste, and placement of 180,000 cubic yards of stabilized material in an on-site landfill.

  - In May 2001, a "tar-like" sludge material was observed on the north bank of the Arkansas River. This material appeared to be associated with the former Sinclair Refinery, and was exposed by erosion in a feature along the north bank of the Arkansas River.
  - A removal action started in 2004 to excavate and remove observed sludge material along the banks of the Arkansas River. The removal action finished in 2006.
- Risks and pathways addressed by the cleanup include health risks from people ingesting or touching contaminants in soil, wastes and groundwater.
- The site was addressed through federal, state and potentially responsible party actions.
- EPA has conducted several five-year reviews of the site's remedy. These reviews ensure that the remedies put in place protect public health and the environment, and function as intended. The most recent review completed in July 2015 concluded that the remedy continues to be protective of human health and the environment.

Tulsa Fuel and Manufacturing, Collinsville

- The 61-acre Tulsa Fuel and Manufacturing site is located in Collinsville in Tulsa County, Oklahoma.
- A zinc smelter operated at the site from 1914 to 1925. Historical smelting operations contaminated soil, sediment and surface water with hazardous chemicals.
- Smelting operations used nine furnaces, which were believed to be fueled by nearby natural gas wells. Other main structures of the smelter included a mechanical kiln building, a condenser room and a laboratory. A two-million-gallon-capacity surface reservoir was used in conjunction with the condenser room during operations. Large amounts of ore were stored on site in waste piles. The site was abandoned in the 1920s.
- EPA has selected a cleanup plan for the site. Construction of the remedy began in August 2014.
- The site's long-term remedy includes on-site consolidation and capping of soil, sediment and waste material. Remedial design is complete.
- Construction of the remedy began in August 2014. Construction is scheduled for completion in September 2016.
- Risks and pathways to be addressed by the cleanup include health risks from people ingesting or touching contaminants in soil, sediment and surface water.
- The site is being addressed through federal and state actions.
- Remediation of the contaminated media will reduce current and future human health and ecological risks associated with on-site and some off-site contaminants.
- Moreover, revitalization of the area will encourage reuse and redevelopment planning. ODEQ is currently managing and overseeing some off-site contamination activities of another smelter with a PRP under a voluntary cleanup program in Collinsville.

Commented [SG1]: Did this happen? Is construction complete? If not, when is the new expected date?

How involved have you been with the Superfund site and contaminated sites in Bristow?

We are assuming that by "Superfund site" they are referring to Wilcox Oil Company, which is a site in Bristow that is currently on the NPL.

Wilcox Oil Company Superfund Site, Bristow

- The 140- to 150-acre Wilcox Oil Company site is located in Bristow and includes the inactive and abandoned Lorraine and Wilcox Oil Refineries.
- The property was used as a crude oil refinery from approximately 1915 to 1963.
- Refinery operations contaminated soil and sediment and left behind waste material.
- The site is located at West 221st Street South about 0.35 miles east of U.S. Highway 66. About 2,404 people live within a mile of the site and about 6,134 people live within four miles of the site. The site area is mostly rural and primarily residential. The site includes a church and seven residential properties.
- The site's remedial investigation and feasibility study (RI/FS) is ongoing.
- Until a complete site investigation and risk assessment are complete, the location of the contamination, the amount of the contamination, and the potential health risks associated with that contamination is unknown.
- The remedial investigation data will be used to conduct a site-specific human health risk assessment and an ecological risk assessment.
- Areas of concern where refinery waste is present have been fenced to restrict trespassing and potential contact with the refinery waste.
- The potential contaminants of concern include lead and organic compounds (Total Petroleum Hydrocarbons and Polycyclic Aromatic Hydrocarbons). These potential contaminants of concern are found in soil, sediment, and waste material.
- The site is being addressed through federal actions.
- The site was placed on the National Priorities List on December 12, 2013. Since that time, EPA completed two searches to find potentially responsible parties to do the work. No potentially responsible parties agreed to do the work, and as a result, EPA received funding to begin the RI/FS for the Site.
- EPA is working closely with ODEQ to plan and implement investigation activities. In addition, EPA and ODEQ are working closely with residents, tribes, and the community to provide site updates and share information.
- The RI/FS phase of the Superfund Process is expected to take approximately 2-3 years.
- Properties of concerned residents were sampled in May and June 2015. Soil data from the residential areas was reviewed to assess the potential for immediate human health risks. All results and concerns were discussed with the residents in October 2015. At this time, no immediate health risks are identified.
- Properties where refinery waste is present at the surface are fenced and locked to deter trespassing and potential contact.

Lorraine Refinery Site (Parent Site: Wilcox Oil Company):
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0606909

Commented [SG2]: Please provide several bullets on this site. Don't need as much detail as we provided on the NPL sites.

Archived Sites

Creeco Mill and Elevator Company:
https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0605169

Kwikset Locks Inc: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0601176
Nu-Chrome Plating: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0605014
Ohio Oil Refinery: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0605082

Commented [SG3]: Please provide several bullets on Kwikset since that site is called out in the question below. A handful of bullets on each of the other sites here should suffice.

Since taking this position, have you visited the Wilcox site, Kwikset or the other sites, or talked with people around the sites?

See above for information on Wilcox, Kwikset, and other sites in Bristow and Tulsa.

Oklahoma's Tar Creek site is well known for the Picher-Cardin buyout. Did your task force look at any changes to the policies on buy-outs?

Tar Creek (Ottawa County), Ottawa County, Oklahoma

- Lead and zinc mining activities first began at the site in the early 1900s.
- Rapid expansion of mining activities occurred during the 1920s and mining activities reached their peak around 1925. Each mine holding usually had its own mill. During the 1930s, large central mills came into operation, and most mining operations stopped operating their own mills.
- During the peak of mining activities, 130,410 tons of lead and 749,254 tons of zinc were produced annually.
- Large-scale underground mining activities ended in 1958. Smaller mining operations continued in the Picher Field through the 1960s. All mining activities at the site ceased in the 1970s.
- Risks and pathways addressed by the cleanup include health risks from people ingesting, touching or inhaling contaminants in soil.
- As of April 2016, there is insufficient information to determine the potential human health risks related to surface water and sediment exposure. EPA Regions 6 and 7 are working to develop and complete a human health risk assessment and characterization report.
- The site has five operable units:
    - *OU-1:* Addresses the surface water degradation by the discharge of acid mine water and the threat of contamination of the Roubidoux Aquifer, the regional water supply, by downward migration of acid mine water from the overlying Boone Aquifer through abandoned wells connecting the two.
    - The final remedy for OU-1, selected in 1984, included use of diking and diversion structures to stop the surface water of Tar Creek from entering the two collapsed mine shafts in Kansas, which were identified as the main inflow points. The remedy also included plugging 83 abandoned wells. Construction activities finished in December 1986. Groundwater monitoring is ongoing.
    - *OU-2:* Addresses residential areas. The long-term remedy for OU-2, selected in 1997, included remediation of residential yards and High Access Areas.
    - In May 2004, the State of Oklahoma implemented a relocation program for families with children under the age of seven.

  - *OU-3:* Addressed abandoned laboratory chemicals at the former Eagle-Picher Office Complex in Cardin, Oklahoma. One hundred and twenty containers of chemicals were removed as part of a removal response action. No further action is necessary.
  - *OU-4:* Addresses source materials, rural residential yard contamination, transition zone soil contamination and contamination in water from rural residential wells. The selected remedy also includes relocation.
  - OU-4 includes an additional area, called the Catholic 40. The area is a 40-acre tract of land owned by the Quapaw Tribe that has cultural and historical significance. Historical structures include remnants of a Catholic church and school built in 1893.
  - Cleanup will include the excavation, hauling, and disposal of 107,000 tons of source material or chat. The cleanup will also include site restoration and bank stabilization of Beaver Creek.
  - *OU-5:* OU-5 addresses sediment and surface water. EPA Region 6 is working with EPA Region 7 as part of multi-state effort to characterize sediment and surface water throughout the Spring and Neosho River basins.
- Since the cleanup of residential properties began, approximately 2,887 residential yards and public properties in Ottawa County have been cleaned up.
- More than 570 acres of land have been cleaned up and made available for future reuse.
- EPA continues to work with project contractors to implement the Superfund Job Training Initative (Super JTI) in Northeast Oklahoma.
  - Super JTI provides job-readiness training and employment opportunities for underserved citizens living in communities affected by Superfund sites.
  - The Tar Creek program generated 250 interested candidates of which 26 were selected for training.
  - A number of graduates were hired by project contractors.
  - One success story: A graduate has worked on OU4 site projects since 2010. As a result of his outstanding performance, he was hired as a full-time employee by EPA's contractor CH2M HILL in July 2010.
- EPA has conducted five-year reviews at the site. The most recent review concluded that response actions at the site are in accordance with the remedy selected by EPA and that the remedy continues to be protective of human health and the environment in the short term.